

RANCHO SANTA ANA BOTANIC GARDEN
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ENCELIA CALIFORNICA
BUSH-SUNFLOWER

1944

RANCHO SANTA ANA BOTANIC GARDEN
of the
NATIVE PLANTS OF CALIFORNIA
Santa Ana Cañon, Orange County, California
Established 1927 in Memory of
JOHN W. BIXBY

ENCELIA CALIFORNICA
BUSH-SUNFLOWER

Compositae

Sunflower Family

Evergreen shrub 3-5 ft. high, usually of rounded outline and with numerous branches about 1 in. in diam. Herbage canescent, slightly aromatic; leaves alternate, lightly pubescent, green; petioles $\frac{1}{4}$ in. long; blades $1\frac{1}{2}$ -2 in. long (on vigorous shoots 3 in. long). Flower heads borne on naked peduncles frequently over a foot long. Unopened heads flattened, about $\frac{1}{2}$ in. across. Involucral bracts in 3 rows; first row of 6 or 7, somewhat spreading, ovate bracts $\frac{1}{4}$ in. long; 2 inner rows, each with about 8 bracts, about $\frac{1}{2}$ in. long. A fully developed flower head is about $2\frac{1}{2}$ in. across, has about 18, clear yellow rays and a deep reddish-purple center. Rays 1 in. long, $\frac{1}{2}$ in. wide, with 3 main teeth, sterile, abortive ovary not even bearing a style. Disc flowers $\frac{1}{4}$ in. long, reddish-purple in upper portion, yellow below, about 200 per head, each with a clasping, chaffy bract, which is reddish and hairy at tip, green or scarious below; corolla 5-parted, with an exserted, 2-parted, yellow style and a reddish anther column. Disc flowers open progressively from outside toward center of receptacle and are nearly all fertile. Achenes mature a few weeks after flowers open, are strongly flattened, about $\frac{3}{16}$ in. long, obovate, truncate at apex, dark brown, nearly glabrous on faces, scarious-ciliate on margins, without pappus, falling with the chaffy bracts leaving the receptacle naked. In germination cotyledons appear above ground, are foliar, petioled; blade about $\frac{1}{2}$ in. long, rounded; next few leaves similar to those on mature plants, but smaller, and only first 2 pairs opposite. Flowers January to June, mainly in April, but along immediate coast likely to be produced at all seasons; seeds (achenes) ripen a few weeks after flowers open.

The genus *Encelia* (named by Adanson, a French botanist, 1727-1806, in honor of Christopher Encel, who wrote a book on oak-galls in 1577) consists of about 15 species of western North America, Peru and Chile. California has 4 species, 3 of which are largely in desert regions. Except for reputed medicinal values and as a former source of gum for incense, members of this genus have no economic significance. *Encelia* is a member of the *Heliantheae* (Sunflower Tribe) and is related to *Geraea* (with 2 species, 1 of which is the Desert-Sunflower) and *Simsia* (widely distributed in No. and So. America, none in California). Anyone who is familiar with the common Sunflowers (*Helianthus* spp.) will readily recognize that *Encelia* and most other genera of this tribe are very similar.

Encelia californica (meaning of California) was described in 1841 by Thos. Nuttall (English-American botanist, 1786-1859) who found it near Santa Barbara in 1836. During the century since he named this species, it has not been burdened with synonyms, and no named segregates have been proposed, except var. *asperifolia* (meaning rough and leaf) found only in Baja California and its adjacent islands,

and described as new in 1913 by S. F. Blake (American botanist and greatest living authority of the *Compositae*, 1892-).

Distribution of *E. californica* is from Santa Barbara Co. to Baja California. It is one of the most common shrubby plants along the immediate coast and in the lower foothills for 25-30 miles inland. It is also found in the interior cismontane areas, but does not reach the deserts. It is, strictly speaking, not a member of the true chaparral, although often present, but is an important component of the lower foothills' "soft-chaparral", which consists largely of *Eriogonum fasciculatum* or var. *foliolosum*, *Artemisia californica*, *Salvia* spp., and *Lotus scoparius*. These are shrubby plants, woody mainly in their lower portions. *Encelia californica* is most abundant on broken sandstone, shale or alluvial deposits, and is largely confined to sunny slopes or flats. It is an invader of disturbed soils and frequently forms solid stands on roadside fills or railroad embankments. During the summer dry season it loses many of its leaves and becomes tinder-dry. Summer brush fires sweep through it rapidly and generally burn every portion above ground. New growth begins immediately after the fall rains, or occasionally earlier, from the root crown. Luxuriant new tops several feet in height are produced the first season and bear extra fine flower heads on very long peduncles. In fact, some of the most attractive stands of this species are on areas that are burned nearly every season, such as the railroad embankments mentioned above.

Propagation of *E. californica* is by seeds which germinate about as readily as common Sunflowers. It is so abundant over much of southern California that it is generally unnecessary to plant it. However, it may sometimes be absent very locally, in which case it may be readily established by transplanting wild seedlings from some near-by area during the winter. The plantings at Rancho Santa Ana Botanic Garden have all been made by digging such seedlings, thousands of which can be obtained each year within the confines of the Garden.

Bush-Sunflower, as *E. californica* is commonly known, is not suitable for the average city garden, but it thrives on neglect, needs no water, will live for years when planted in coarse soils within the limits of its natural distribution, and produces an abundance of large, lovely, dark-centered, yellow flowers which brighten the landscape and are also usable as cut-flowers. Drastic pruning in late summer or fall before the new growth begins will result in more luxuriant herbage and finer flowers on longer stems.

We have grown three other species of *Encelia* for many years. *E. frutescens* has rayless heads and is of no ornamental value. *E. actonii* and *farinosa* (Incienso) have gray foliage. The former is sometimes regarded as a var. of *E. frutescens*, but has lovely light yellow, rayed heads. The latter has darker yellow heads and yellow or brownish centers which are borne in great profusion in cymose panicles. Both of the latter are good subjects for wild gardens in the hot interior and desert sections.

CARL B. WOLF

RANCHO SANTA ANA BOTANIC GARDEN

Dedication of Garden Foundation to the Board of Trustees for the Rancho Santa Ana Botanic Garden of the Native Plants of California:

"THE NATURE, OBJECT AND PURPOSE OF THE INSTITUTION
HEREBY FOUNDED AND TO BE MAINTAINED HEREUNDER.

ITS NATURE: A botanic garden of the native plants of California, herbarium and botanical library, containing living and/or preserved specimens of trees, plants and flowers native to California, and literature relating thereto.

ITS OBJECT: The preservation and improvement of the property now transferred and such property as may hereafter be transferred to the Trustees for those who not only wish to enjoy, but to study, assembled in one accessible locality, native California plants; and for the advancement of science and education with reference to plant life indigenous to the State of California.

ITS PURPOSES: (a) An institution founded primarily for scientific research in the field of local botany.

(b) To preserve the native California flora, try to replenish the depleted supply of some of the rarest plants which are rapidly being exterminated, and bring together in a comparatively small area as complete a collection of the rich store of native California plants as can be grown in this southern section of the state, thereby promoting the general welfare of the people of the state by providing the means for encouraging and carrying on the above mentioned activities in said state and by doing such other things as may be necessary and desirable to carry out the objects hereof."

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